Cambridge COPD centre

Endobronchial valve treatment

Lung volume reduction with valves

This leaflet is for patients who have undergone a bronchoscopic procedure with valve insertion.

Date of procedure

The lung is divided into compartments called (lobes) and the valves have been placed in the air ways of one of these lobes.

The valves (1) will allow air and secretions to pass out of the lobe (2) and not back in (3). This may result in the lobe shrinking in volume and may allow more healthy parts of the lung to expand and to help in the exchange of oxygen and carbon dioxide.

After the procedure

You will stay in hospital for three days for observation and x-ray to rule out any possible complications.

Risks and possible complications

The most common complications are:

- Pneumothorax – approximately one in 10 people will develop a tear in the lung which causes air to leak into the sac surrounding the lung. However, this usually means the procedure has been successful. These leaks normally heal themselves after treatment with a chest drain. In rare cases this can be a serious/life threatening complication.
- Chest infection occurs in approximately one in 10 people.
- Bleeding occurs in less than one in 100 people.
- Absence of benefit from treatment.
- Occasionally a valve can become dislodged and coughed out.
Signs and symptoms to report immediately

- Chest pain
- Rapid increased in shortness of breath
- High temperature
- Coughing up blood or more sputum than normal

Post discharge plan

For the first few weeks at home you must not put your new valves under too much pressure by over exerting yourself. So take things easy and do not over exercise.

You need to continue taking antibiotics:

**Antibiotic plan:**

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_______________________________________________________________________
_______________________________________________________________________

It is important to ensure that any sputum you produce is easily coughed out of your lungs therefore if you have a nebuliser at home use this four times daily with Salbutamol 2.5mg nebules. Alternatively if you do not have a nebuliser at home take two puffs of your Salbutamol inhaler regularly (minimum of four times daily) through a spacer device. You need to continue with this while you are taking the antibiotics.

You may also have been prescribed oral steroid tablets (Prednisolone) – if so take these once daily with breakfast as directed:

**Prednisolone plan:**

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Continue taking **two Carbocisteine capsules** – three times daily to reduce sputum stickiness.

Please show this leaflet to the medical team if you are admitted to hospital or if you need to be seen by your GP post discharge.
Notes for the clinical team
There is a risk of pneumothorax within the first two weeks post procedure – one in five patients can develop a small air leak:

Symptoms of a pneumothorax include chest pain that usually has a sudden onset. The pain is sharp and may lead to feelings of tightness in the chest. Shortness of breath, rapid heart rate, rapid breathing, cough, and fatigue are other symptoms of pneumothorax.

If the patient is compromised they will require urgent review as they may need a chest drain insertion, however as the lung is likely to be tethered a CT scan may be required pre drain insertion – please contact Dr Ravi Mahadeva or Dr Jurgen Herre via the Addenbrooke’s switch board for advice (01223 245151).

The patient needs to be monitored closely for signs of chest infection post hospital discharge and will require prompt treatment to prevent sputum production distal to valve if they do develop signs of an infective exacerbation.

There is normally no contraindication to positive pressure ventilation if this is needed – please discuss with Dr Ravi Mahadeva or Dr Jurgen Herre via the Addenbrooke’s switch board (01223 245151).

Who to contact
Susan Perrott - Lead respiratory nurse specialist – Addenbrooke’s Hospital
Office: 01223 216647
Work mobile: 077158 90271
Long range pager: 07623 978704

Local respiratory team/GP/community matron
Contact details: ..............................................................................................................................

Follow up plan
Within in a week of being discharged we will contact your local respiratory team to arrange a chest x-ray at your local hospital as we need to check you have not developed a post procedure pneumothorax.

If you have a community respiratory team we will liaise with them and ask them to closely monitor you for the next couple of weeks. This is the time you are most vulnerable to infections and post procedure complications. If you do not have a local community respiratory team we will ask your GP to review you.

An outpatient’s appointment in clinic 2a to see Dr Mahadeva has been arranged:

Date:..............................................................................................................................Time.............................................................

References/ Sources of evidence
www.pulmonx.com
We are now a smoke-free site: smoking will not be allowed anywhere on the hospital site. For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

**Other formats:**

If you would like this information in another language, large print or audio, please ask the department where you are being treated, to contact the patient information team: patient.information@addenbrookes.nhs.uk.

Please note: We do not currently hold many leaflets in other languages; written translation requests are funded and agreed by the department who has authored the leaflet.

**Document history**

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